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Pestiviruses are unique in their ability to cause persistent infection (PI) in pigs infected in utero. In cattle, PI calves play an important role in maintenance of bovine viral diarrhoea virus infection in the herd. In pigs, the occurence of classical swine fever virus (CSFV) PI piglets is anticipated to be epidemiologically important.

To study the course of CSFV PI in pigs, four sows were infected with 2009-CSFV Lithuania between day 50-60 of gestation. The sows gave birth to 66 piglets of which 55 % were live-born. Out of these, thirty % were considered to be PI pigs, while 40% were acutely infected and seroconverted rapidly. The status of the remaining 30% is unclear. Both PI and acutely infected piglets occurred in the same litters.

All piglets were tested CSFV antibody-negative at birth if precolostral blood samples were available. PI piglets quickly lost the maternally derived antibodies as free antibodies were not detected in serum even though the sows had Virus neutralization titer (Vnt) titers of 100. Non-PI piglets were able to raise active immunity, since specific antibodies to CSFV stabilized at a mean Vnt titer of 200. While some PI piglets showed growth retardation as well as central nervous disturbances, several other developed normally without showing clinical symptoms. The correlations between clinical signs, virus isolation, antibody levels and detection of CSFV by quantitative RT-PCR will be compared for PI and acutely infected piglets.

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